Abstract

Introduction acute flaccid paralysis is a medical emergency with potentially life-threatening aetiologies. Hypokalaemic periodic paralysis is a result of genetic mutation causing abnormal potassium fluxes across skeletal muscle membranes leading to muscle paralysis and this could be precipitated by thyrotoxicosis.

Case presentation A young male presented with acute flaccid paraparesis with hyporeflexia and preserved sensory, autonomic, cerebellar, bulbar and cortical functions. Electrocardiogram showed U waves and biochemistry confirmed severe hypokalaemia without urinary potassium loss and acid-base disturbance. The patient was clinically and biochemically thyrotoxic. Potassium correction lead to rapid and complete resolution of weakness. Graves disease was confirmed with serological and radiological investigations and was successfully treated with radio-iodine therapy.

Conclusions Hypokalaemic periodic paralysis is associated with thyrotoxicosis and presents as acute flaccid paralysis, mimicking Guillain Barre syndrome. Prompt correction of potassium and treating thyrotoxic state are the key to successful management.